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December 31, 2015

# Via Email and Certified Mail

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Re: Request for Information, Southern California Gas Company Aliso Canyon

Natural Gas Release

#### Dear Ms. Lawrence:

This letter constitutes Southern California Gas Company's ("SoCalGas") initial response to the United States Environmental Protection Agency's ("EPA") December 18, 2015 Request for Information ("Request") regarding the gas leak ("Incident") at SoCalGas's Aliso Canyon Storage Facility located at 12801 Tampa Avenue, Northridge, California ("Facility").

Please note that SoCalGas's investigation of the events surrounding the Incident and SoCalGas's efforts are ongoing. The responses set forth herein and the documents provided are based upon the information readily available to SoCalGas at the time of this submittal, and in light of the limited response time. Further investigation and changing circumstances may cause these responses to be incomplete or subject to amendment or modification. SoCalGas may amend or supplement these responses and documents in the event of new or additional information and/or changed circumstances.

The EPA's requests, and SoCalGas's responses, are as follows.

#### **EPA Request:**

1. Provide the following general information:

a. A Facility map and plot plan, to include the well pad for Standard Sesnon Well 25 ("Well SS 25").

# SoCalGas Response:

Please see Exhibit 1.a.

## **EPA Request:**

b. A description of the Facility and operations.

## **SoCalGas Response**:

SoCalGas delivers natural gas to millions of customers throughout Central and Southern California. The Facility is the largest underground natural gas storage field operated by SoCalGas and one of the largest in the United States. It is an important site to Southern California residents and businesses, and to the Los Angeles Department of Water and Power and Southern California Edison Company energy grids.

The Facility is located at 12801 Tampa Ave., Northridge, CA, north of Highway 118, and encompasses a surface area of approximately 3600 acres. Prior to its use as storage for natural gas, the Facility was owned and operated by third parties as an oil field. In the early 1970s, after the majority of its oil reserves were depleted, the Facility was acquired by a former affiliate of SoCalGas from various oil companies, including the Getty Oil Company and Standard Oil Company, and converted to a natural gas storage facility upon the granting of a certificate of public convenience and necessity ("CPCN") by the California Public Utilities Commission ("CPUC") in 1972. The Facility has approximately 86.2 billion cubic feet ("Bcf") of working storage inventory and 115 natural gas injection/withdrawal/observation wells. Within the field, it is estimated that there are approximately 38 miles of natural gas injection, withdrawal, and liquid-handling pipelines that connect the natural gas storage wells to processing and compression facilities.

The Facility helps maintain reliable and economical natural gas supplies needed to fuel electricity generation plants, manufacturing facilities and businesses of all sizes, and for residential uses. Specifically, the Facility is used to store natural gas in underground reservoirs during periods when price and demand for gas is low and supplies are plentiful. When demand is high and supplies are scarce, gas is then withdrawn from the Facility and distributed to customers. This practice helps keep prices low for customers and meet demand for natural gas during periods of seasonal weather fluctuations where natural gas demand is high, in particular during the summer and winter months.

Facility operations include natural gas compression for storage, natural gas processing for distribution, and associated equipment and storage well maintenance activities. Crude oil is also produced as a by-product in the natural gas production process. In addition, there are third parties operating limited oil and gas production facilities on the Aliso Canyon property. The Facility consists of the following structures and areas:

- Natural gas storage wells
- Natural gas compression plant
- Natural gas dehydration facilities
- Power generation facility
- Crude oil storage
- Main access road and entry drive to the facility
- Employee and visitor parking areas
- Loading, unloading, and storage areas
- Administrative and service areas

# **EPA Request:**

c. A management organizational chart for the Facility (include identification of personnel with environmental responsibilities).

## **SoCalGas Response**:

SoCalGas has enclosed a copy of its management organizational chart for the Facility. *See* Exhibit 1.c.

# **EPA Request**:

d. Descriptive information about any/all other natural gas storage fields owned or operated by the Company and/or its parent corporation.

## SoCalGas Response:

SoCalGas maintains four underground natural gas storage fields, with a combined working capacity of approximately 136Bcf, to help meet peak hourly, daily, and seasonal demands for all its customers. All of these storage fields play a critical role in SoCalGas's gas storage and distribution system. These four underground fields are: Aliso Canyon (86.2 Bcf), La Goleta (21.5 Bcf), Honor Rancho (26.0 Bcf), and Playa del Rey (2.4 Bcf).

#### **Honor Rancho**

Honor Rancho is located in Northern Los Angeles County, approximately ten miles north of Aliso Canyon, with a working capacity of approximately 26 Bcf, and delivers natural gas to the Los Angeles pipeline loop. Honor Rancho is a former oil field and was acquired by SoCalGas and converted to natural gas storage operations in 1975. Honor Rancho has 40 natural gas injection/withdrawal wells and is designed for a maximum withdrawal capability of 1.0 Bcf per day. It is estimated that approximately 12 miles of pipelines connect the storage wells to processing and compression facilities.

#### La Goleta

La Goleta is located in Santa Barbara County and provides service to the northern coastal area, which includes primarily Ventura, Santa Barbara and San Luis Obispo counties. It was acquired by SoCalGas and converted to natural gas storage operations in 1941, and it has a working capacity of approximately 21 Bcf. It has 20 gas injection/withdrawal/observation wells and is designed for a maximum withdrawal capability of 0.4 Bcf per day. It is estimated that approximately eight miles of pipelines connect the storage wells to processing and compression facilities.

# Playa Del Rey

Playa Del Rey, located in central Los Angeles County near the Los Angeles International Airport, was placed into storage service in 1942. It is the smallest of the storage fields, yet, due its location, is a critical asset with a design working capacity of approximately 2.4 Bcf. Playa Del Rey has 54 gas injection/withdrawal/observation wells. It is estimated that approximately 11 miles of pipeline connect the storage wells to processing and compression facilities. Playa Del Rey is designed for a maximum withdrawal rate of 0.4 Bcf per day to meet residential, commercial and industrial loads throughout the western part of Los Angeles, including oil refineries and power generators.

The charts and maps below further describe the characteristics of all four storage fields.

# Southern California Gas Company Descriptive Statistics of Storage Fields

Descriptive Statistic	Aliso Canyon	La Goleta	Honor Rancho	Playa del Rey	Total All Fields
Year Field Placed in Service	1973	1941	1975	1942	-
Injection/Withdrawal/Observation Wells (number)	115	20	40	54	229
Gas Compressor Units (number)	8	8	5	3	24
Compression Horsepower (bhp)	42,000	5,700	27,500	6,000	81,000
Maximum Reservoir Pressure (psig)	3,600	2,050	4,400	1,700	-
Working Gas (Bcf)	86.2	21.5	26.0	2.4	136.1
Maximum Withdrawal Rate (MMcfd)	1,860	420	1,000	400	3,760
Maximum Injection Rate (MMcfd)	600	140	300	75	1,115
Maximum Well Depth (feet)	10,691	6,912	13,300	6,575	-
Minimum Well Depth (feet)	6,997	4,247	9,165	6,049	-
Average Well Depth (feet)	8,146	4,886	9,959	6,339	-

# Southern California Gas Transmission System Inyo RETINANDIAVE White Eler RIDGE Ridge Santa Barbara Ventura Los Angeles Ventura Los Angeles Newberry South Needles Roge North Needles South Needles Roge North Needles South Needles Needles South Needles South Needles Needles South Needles Needles South Needles Needles South Needles South Needles Needles South Needles South Needles Needles South Needles Needles South Needles Needles South Needles Needles Needles South Needles Needles South Needles Needles South Needles South Needles Needles South Needles Needles South Needles Needles South Needles South Needles Needles South Nee

# Southern California Gas Company Transmission and Storage System

Please let us know if you still request information regarding SoCalGas's parent company.

# **EPA Request**:

2. With respect to the Well SS 25 Release, provide copies of all submittals made to any local, state or federal agencies relating to the Release as of the date of the response to this Information Request.

# SoCalGas Response:

SoCalGas is continually (often daily) meeting with and submitting information to multiple government agencies and representatives regarding the Release. Copies of some of these submittals are included in Exhibit 2.

SoCalGas also provides daily reports to DOGGR regarding flowing Wellhead Pressures, Daily and Cumulative Volumes associated with SS25, and summary of activities at the well. Examples of such reports will be included in Exhibit 2.

SoCalGas is willing to provide to EPA other additional submittals if requested.

# **EPA Request:**

- 3. Unless otherwise provided in response to Item 2 above, provide the following regarding the Well SS 25 Release. If provided in response to Item 2 above, identify the corresponding document and page numbers.
  - a. A map or other description showing, as well as a description of, the point(s) of the Release.

## **SoCalGas Response**:

Attached in Exhibit 3.a. is a community bulletin that contains a map of the well and describes efforts to terminate the leak.

# **EPA Request:**

b. A description of the cause of the Release, including all known and/or suspected root causes and contributory factors.

## **SoCalGas Response**:

SoCalGas continues to investigate the cause of the Release. On December 14, 2015, the CPUC and DOGGR jointly directed SoCalGas to hire an independent third party to perform a technical root cause analysis ("RCA") regarding the cause of the leak. The CPUC and DOGGR have requested that SoCalGas identify at least three potential independent third parties to perform the RCA and submit a list of third parties to the CPUC and DOGGR. On December 28, 2015, SoCalGas provided the CPUC and DOGGR with three proposed candidates to conduct the RCA. The relevant correspondence is attached. *See* Exhibits 2 and 3.b.

#### **EPA Request:**

c. Design specifications for Well SS 25.

#### SoCalGas Response:

This will be provided in a supplemental production.

#### **EPA Request**:

d. A detailed history of physical changes or modifications made to Well SS 25, including the dates such modifications were implemented and the purpose for which the modifications were made.

#### SoCalGas Response:

Attached in Exhibit 3.d are documents describing workovers relating to Well SS 25.

#### EPA Request:

e. A description of the Company's mechanical integrity program for the inspection, testing and preventative maintenance for Well SS 25, including leak detection.

# SoCalGas Response:

Please see Exhibit 3.e.

SoCalGas conducts daily observations of the equipment and conditions for each well at the Facility, including Well SS 25. SoCalGas also measures and records wellhead pressure on a weekly basis. SoCalGas conducts monthly inspections of wellheads and average pressures, which it submits to DOGGR. SoCalGas conducts annual well inspections using a tool designed to detect leaks. If any test results in any unexpected finding, SoCalGas conducts further analysis and work designed to ensure the concern is promptly addressed. In addition, SoCalGas conducts annual surface area leak inspections of each well using gas detection equipment.

# **EPA Request**:

f. All documents that describe Standard Operating Procedures used in the inspection, testing and preventative maintenance of Well SS 25, including leak detection.

# **SoCalGas Response**:

Please see Exhibit 3.f. for a collection of such materials.

# **EPA Request:**

g. A listing of recognized and generally accepted good engineering practices, used in the development and implementation of the Company's inspection, testing and preventative maintenance of Well SS 25.

#### SoCalGas Response:

SoCalGas has provided in prior responses information relating to the inspection, testing and maintenance of Well SS 25. Please contact us if you request additional information.

## **EPA Request:**

h. Inspection, maintenance, and leak detection records for Well SS 25 from January 1, 2012 to the present.

## SoCalGas Response:

Please see Exhibit 3.h for a collection of such materials.

# **EPA Request**:

i. All documents that describe Standard Operating Procedures used for accident mitigation or emergency response regarding any risks associated with the maintenance or operation of Well SS 25 or other similarly-situated wells.

# SoCalGas Response:

SoCalGas has enclosed as Exhibit 3.i. copies of documents that describe its Standard Operating Procedures used for accident mitigation or emergency response, as well as the Storage Emergency Binder, Aliso Canyon Safety Plan, Aliso Canyon Emergency Action and Fire Prevention Plan, Spill Prevention Control and Countermeasure Plan (SPCC), Production Facility Spill Contingency Plan (SPC), Storm Water Pollution Prevention Plan (SWPPP), and Business Plan California Environmental Response System – Consolidated Emergency Response/Contingency Plan.

## **EPA Request:**

j. A description of current fire safety/prevention measures being implemented both at the Release point(s) and at the Well SS 25 wellhead.

# **SoCalGas Response**:

SoCalGas has provided in prior responses information relating to current safety/prevention measures being implemented both at the Release point and Well SS 25. Please contact us if you request additional information.

#### **EPA Request:**

k. A description of current Incident Command Structure (ICS) organizational structure (ICS 207 or equivalent)

## **SoCalGas Response**:

Please see Exhibit 3.k.

# EPA Request:

l. Identification of any/all incident-specific website(s) that any safety or regulatory agencies have current access to. Provide access to EPA.

# **SoCalGas Response**:

SoCalGas has created an incident-specific website which the EPA can access at: <a href="https://www.alisoupdates.com/">https://www.alisoupdates.com/</a>.

Additionally, SoCalGas has provided DOGGR with access to real-time electronic monitoring of wellhead pressures at Well SS 25 via a weblink. SoCalGas may be able to provide EPA with such access as well if it so requests.

# **EPA Request:**

m. Identify and provide copies of any notifications of the Release made to public agencies, including agency name; date, time and method of notification; whom contacted; and notification/report number (as applicable).

# **SoCalGas Response**:

Below is a list of some of the notifications provided by SoCalGas regarding the Release. As with all other requests, SoCalGas reserves the right to supplement this list further.

- SoCalGas provided a verbal notification to DOGGR on October 24, 2015 at 11:20 am.
- SoCalGas notified the CPUC on October 25, 2015 at 11:16 am using the standard reporting form "Report of Gas Leak or Interruption" (CPUC File No. 420).
- SoCalGas notified the California Office of Emergency Services ("CAL-OES") and CUPA on October 26, 2015 at 11:46 am. This notice was then transmitted by the CAL-OES to the California Air Resources Board, South Coast Air Quality Management District, the Administrating Agency/CUPA, the California Department of Fish & Wildlife Office of Spill Prevention, the Los Angeles Regional Water Quality Control Board, the U.S. EPA and the United States Department of Fish and Wildlife.
- SoCalGas also notified CAL-OES on November 13, 2015 at 1:34 pm after an attempt to terminate Well SS 25. This notice was then transmitted to DOGGR, CARB, the Los Angeles County Department of Public Health, the Los Angeles County Department of Environmental Health, the Administrating Agency/CUPA, the California Department of Fish & Wildlife Office of Spill Prevention, the Los Angeles Regional Water Quality Control Board, the U.S. EPA, the U.S. Department of Fish and Wildlife, the California Department of Toxic Substances Control, the California Department of Public Health District Office, and the Bureau of Safety & Environmental Enforcement.

# **EPA Request**:

n. Copies of the Company's policies and procedures with respect to public agency notifications of natural gas leaks at the Facility.

# SoCalGas Response:

Please see Exhibit 3.n.

## **EPA Request**:

o. Company-prepared estimates of release rates to the atmosphere (daily, weekly, monthly, and/or yearly) for natural gas, total volatile organic compounds (VOCs) (as defined by 40 CFR § 51.100) and total reduced sulfur (TRS) from Well SS 25 during the Well SS 25 Release, with supporting documentation of methodology/methodologies employed in arriving at estimate(s).

# **SoCalGas Response**:

SoCalGas has not yet prepared any estimates of the requested release rates. SoCalGas is working with CARB to quantify emissions, including (1) funding weekly fly-over leak quantification measurements and performing on-the-ground mobile monitoring in direct coordination with the fly-overs; and (2) providing CARB with site-specific data regarding inventory and well pressure, noise and temperature readings, and well kill activities. Direct measurement of the field once the leak is stopped and reservoir pressures stabilize will provide a more accurate answer regarding the amount released. SoCalGas has an established procedure for estimating the storage inventory of gas within the storage reservoir. This procedure follows industry standard best management practices by the underground storage reservoir subject matter expert (SME). The procedure involves measuring static wellhead pressures across the field during the "shut in" period where no gas is flowing in or out of the reservoir.

It takes approximately two weeks to allow the pressure to equalize across the reservoir. During the "shut in" SoCalGas takes wellhead pressure readings at all injection and withdrawal wells on a daily basis across the reservoir. At the end of this two week period, this data is then analyzed by the SME to calculate the volume of gas within the storage reservoir. SoCalGas intends to perform this inventory analysis once the gas release from Well SS 25 is stopped and the reservoir is shut in over a two week time period. Additional measurements will be taken in the geologic formation surrounding Well SS 25 to estimate the amount of natural gas remaining underground. Because of the ongoing leak at Well SS 25, SoCalGas is unable to perform this established procedure at this time.

## **EPA Request**:

p. A description of all activities undertaken, as of the date of your response to this Information Request, to mitigate the rate and quantity of natural gas released during the Well SS 25 Release.

# SoCalGas Response:

The responses to the prior questions, as well as all of the exhibits referenced therein, describe some but not all of the activities undertaken by SoCalGas in connection with the Release. The following narrative contains a brief summary of these activities, but it is not comprehensive. Because of the extensive action taken by SoCalGas in response to the Release,

it is not feasible to describe in this response all of the activities undertaken to mitigate the Release.

SoCalGas has undertaken a multi-pronged approach to stop and mitigate the Release at the Facility. SoCalGas has assembled a world-class team of experts, and is working as quickly as safety will allow to stop the Release. In addition, SoCalGas is in regular communication with numerous regulatory agencies, including the Los Angeles City and County Fire and Hazmat Departments, the Los Angeles County Department of Health, CARB, SCAQMD, CAL-OES, DOGGR, CPUC and EPA to oversee the operations at the Facility, including holding daily briefings at the Facility to ensure that information and developments are communicated as timely as possible and that there is a coordinated effort to stop the leak and implement mitigation measures.

As soon as the leak was discovered on October 23, 2015, SoCalGas secured the site and immediately took a step-by-step approach to locate and seal the leak at the wellhead. First, SoCalGas brought in a contractor (Cameron) early on October 24 to attempt to stop the leak by making a repair to the wellhead seals. When this first step was not successful, SoCalGas continued to monitor well pressures, brought in additional contractors (Halliburton and Onyx), and ordered well abatement equipment to be delivered to the wellhead. SoCalGas and its contractors then attempted to stop the flow of gas from Well SS 25 by pumping a polymer carbonate fluid down the well at approximately 12:30 pm on October 24. SoCalGas was unable to pump the necessary fluid down the well using this procedure. As a result, this effort was also not successful in stopping the leak. At approximately 2:30 pm on October 24, SoCalGas shut down this pumping operation.

SoCalGas continued to monitor the well and notified its consultant, Boots & Coots ("B&C"), of the situation late in the day on October 24. B&C is an internationally renowned specialized contractor with expertise in responding to oil and gas well concerns. SoCalGas retained B&C to stop the leak and seal the leaking well permanently. B&C personnel arrived at the Aliso facility from Houston in the early evening of October 25. To date, SoCalGas and B&C have made seven separate attempts to directly plug the well, but none have succeeded.

On October 26, B&C initiated work at the well site to prepare for wireline work. A "wireline" is a cable technology that allows tools and other equipment to be lowered deep into a well. On October 27, this work consisted of performing isolation and line out of the SS 25 site surface piping/abatement system and setting-up the wireline. On the same day B&C closed in SS 25 and monitored the pressures. The site conditions remained stable. On October 27, SoCalGas also began holding daily morning briefings with regulatory agencies interested in attending, including but not limited to DOGGR, SCAQMD, Los Angeles County Department of Public Health, and Los Angeles County Fire Department.

On October 28, B&C assembled a weighted tool on the wireline and lowered it into the well. The weighted tool encountered a blockage at 467 feet below ground surface and could not proceed any further past that point. B&C took down the wireline equipment and connected a pump truck to the wellhead to pump brine into the well in an effort to remove the blockage.

B&C pumped brine into the tubing up to a pressure of approximately 2300 psig. This attempt to remove the blockage was unsuccessful. B&C again connected the wireline and weighted tool and encountered the same blockage at 467 feet. B&C dismantled the wireline equipment and secured the location. The site conditions remained stable.

On October 29, the wireline unit was again connected to the wellhead and encountered blockage in the tubing at approximately 36 feet below ground surface. At this time, it was determined that a coil tubing unit would be needed to remove the blockages, and one was immediately ordered through B&C to be shipped via tractor-trailer transport to the site from Louisiana. A coil tubing unit consists of a long, continuous length of pipe that can be unspooled and inserted down the well. The coiled tubing unit was selected because it has the ability, among other things, to aggressively remove the blockage through the use of a high pressure jet nozzle.

On October 30, crews started removing the SS 25 well piping in preparation for the coiled tubing unit. SoCalGas continued to monitor SS 25 during this time and site conditions remained stable. On October 31, the coil tubing preparation work continued. The SS 25A well, which is adjacent to the SS 25 well, was taken out of service by injecting polymer and brine fluid. This procedure reduced the SS 25A well surface pressures to 0 psig. The site conditions remained stable.

The coil tubing rig arrived at the Facility in the late afternoon of November 1 while well preparations continued. Over the next two days (November 2-3), the coil tubing unit was brought up to and assembled at the job site, tested, and connected to the wellhead. During this time, SoCalGas requested that CARB issue an "emergency event" exemption from the Portable Equipment Registration Program ("PERP") rules, allowing SoCalGas to immediately deploy the unit's diesel engine without waiting for a PERP certification. This exemption was issued on November 2.

On November 4, in preparation for operation of the coiled tubing unit, pressure testing of the SS 25 well piping commenced and continued through the next day. As small leaks were found, repairs were made. On November 5, the coiled tubing rig began breaking through the blockage and introducing fluid into the well.

On November 6, the coil tubing process appeared to be successful in initiating the process to stop the flow of gas from SS 25. The well was filled with a total of 320 barrels of a mixture of Glycol and brine. At around 4:00 pm, gas was detected at the surface indicating that the frozen blockage may have been broken. The coil tubing equipment was disconnected from the wellhead and the well was secured. The coil tubing operations recommenced the next day, November 7, and well-management experts from B&C continued to evaluate the conditions of the well pipe. The information gathered from these diagnostic tests guided the next steps to safely stop the flow of gas.

Following removal of the plug on November 6, SoCalGas performed 6 additional kill attempts to stop the leak of gas from the well. These were performed on November 13, 15, 18, 24, 25, and December 22. None of these were successful for differing reasons but ultimately

because the fluids were unable to overcome the velocity and pressure of the gas being released through the well. Additional details may be made available upon request.

SoCalGas has also attempted to stop the leak by drilling relief wells. SoCalGas is drilling the first relief well to intersect the existing well bore below the leak. SoCalGas intends to pump cement through the relief well to stop the flow of natural gas from the well. SoCalGas is preparing a second relief well site as a backup operation, and drilling is expected to begin in January 2016.

Drilling of the first relief well commenced on December 4, 2015 and involves five phases. The drilling of the relief well continues around the clock.

Phase 1 involved installing the initial segment of the relief well. SoCalGas drilled a hole to approximately 1,200 feet below the surface and installed a steel pipe, which was reinforced with cement, and the well head. On December 13, SoCalGas began testing the well head and conducting additional surveys to direct the directional drilling operation for Phase 2. Phase 1 is now complete.

Phase 2 involved additional drilling to locate the leak. On December 16, crews reached 1,575 feet below the surface. On December 17, crews reached 2,800 feet below the surface. SoCalGas completed Phase 2 by drilling to 3,800 feet below the surface and moved to Phase 3. Phase 3 involved identifying the leaking well with electromagnetic ranging technology. Phase 3 is now complete.

Phase 4 is now in progress. Phase 4 involves drilling the relief well to follow the leaking well to more than 8,000 feet deep. SoCalGas will be interchanging between drilling and electromagnetic ranging technology as needed to increase the precision of the relief well in relation to Well SS 25 and to follow Well SS 25 down at the appropriate distance, angle and orientation to intercept the well.

During Phase 5, SoCalGas will intercept Well SS 25 near its bottom by drilling through the well and pumping heavy mud and fluids into the leaking well to stop the flow of gas from the reservoir and into the well. Once the flow of gas has been stopped, SoCalGas will pump cement into the bottom of the well to permanently seal it.

In addition to the attempts to kill Well SS 25 and intersect the well through the drilling of a relief well, SoCalGas is taking additional mitigation measures to reduce the emissions from the leak. First, SoCalGas is withdrawing gas from the storage facility to decrease the pressure pushing gas out through the leak. SoCal Gas has prioritized the use of gas from the Aliso Canyon Storage Facility to supply customer demand and, as a result, is withdrawing natural gas from the field at about double the typical rate for this time of year. This withdrawal reduces the amount of gas being released into the air. Second, SoCalGas is working with some of the world's most experienced engineering firms to develop innovative approaches to capture the gas that is escaping from the leak. Capture approaches being considered and developed include onsite flaring/incineration, on-site carbon treatment, on-site combustion in an internal combustion engine (with possible power recovery), and recovery with compression.

\* \* \*

SoCalGas's submission of the responses above and the attached documents does not constitute and is not to be construed as a waiver of any objection to the Request or other rights, privileges or protections. Specifically, and without limitation as to other objections, SoCalGas objects to the Request to the extent it calls for information protected by the attorney-client privilege or attorney work product rules.

The documents and information provided in this response contain confidential business information, trade secrets and/or highly sensitive information of SoCalGas. SoCalGas claims confidentiality protection under all applicable federal and state laws with respect to such information, including 40 C.F.R. Part 2, Subpart B. Given the nature of the information and the short response time provided by EPA, SoCalGas is identifying all information and documents provided in this response as confidential business information and will supplement this designation at a later time. More details regarding SoCalGas's confidentiality designations are included in the attachment to this letter.

Sincerely,

Jimmie I. Cho

Senior Vice President

Gas Operations & System Integrity

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cc: Letitia Moore, EPA Assistant Regional Counsel

SoCalGas's responses (the "Response") to the EPA's December 18, 2015 Information Request, including the documents enclosed in the production (collectively the "Response"), are designated as Confidential Business Information ("CBI") pursuant to section 114(c) of the Clean Air Act, 42 U.S.C. § 7414(c) and 40 C.F.R. Part 2, subpart B. The Response contains nonpublic, proprietary and/or trade secret information that differentiates SoCalGas's products, processes, and strategies from its competitors.

# DESIGNATION OF CONFIDENTIAL BUSINESS INFORMATION

42 U.S.C. § 7414(c) & 40 C.F.R. Part 2, Subpart B

1. What specific portions of the information are alleged to be entitled to confidential treatment? Specify by page, paragraph and sentence when identifying the information subject to your claim.

SoCalGas designates the entire Response, including the cover letter and enclosed documents, as CBI. At a later date, based on additional review, SoCalGas may revise the designation to exclude certain portions of these submittals that have previously been made public or are otherwise no longer subject to an assertion of confidentiality.

2. For what period of time do you request that the information be maintained as confidential, e.g., until a certain date, until the occurrence of a specified event or permanently? If the occurrence of a specific event will eliminate the need for confidentiality, specify that event. Additionally, explain why the information should be protected for the time period you've specified.

SoCalGas requests that this information be permanently maintained as confidential subject to SoCalGas's revised designations of certain portions as CBI at a later date. As discussed below, SoCalGas's produced documents comprise non-public, proprietary and/or trade secret information that differentiates SoCalGas's products, processes, and strategies from its competitors.

3. What measures have you taken to protect the information claimed as confidential from undesired disclosure? Have you disclosed the information to anyone other than a governmental body or someone who is bound by an agreement not to disclose the information further? If so, why should the information still be considered confidential?

SoCalGas's confidential information is not made publicly available and to the extent it is disclosed to third parties, it is done so through an agreement to protect the confidentiality of the documents.

4. Is the information contained in any publicly available material such as the Internet, publicly available databases, promotional publications, annual reports or articles? Is there any means by which a member of the public could obtain access to the information? Is the information of a kind that you would customarily not release to the public?

Many of the documents produced, including SoCalGas's submittals to governmental regulatory agencies, are not released to the public and not contained in publicly available materials such as the Internet, publicly available databases, promotional publications, annual reports or articles. To the extent that certain portions of SoCalGas's submittals are publicly available based on additional review, SoCalGas will revise the designation of those portions at a later date.

5. Has any governmental body made a determination as to the confidentiality of the information? If so, please attach a copy of the determination.

SoCalGas is unaware of any determination specific to these documents, although there may be one or more determinations as to a subset of the documents.

6. For each category of information claimed as confidential, explain with specificity whether disclosure of the information is likely to result in substantial harm to your competitive position. Explain the specific nature of those harmful effects, why they should be viewed as substantial, and the causal relationship between disclosure and such harmful effect. How could your competitors make use of this information to your detriment?

SoCalGas's confidential documents comprise non-public, proprietary and/or trade secret information that SoCalGas only shares with its business partners or others, subject to a non-disclosure agreement or other confidentiality protections. These documents also contain sensitive information relating to the products, processes, and strategies of SoCalGas, and making these documents public could negatively impact SoCalGas's business. In addition, certain information may affect the security of SoCalGas's operations, which are essential to providing energy to many people and entities. Maintaining the confidentiality of SoCalGas's products, processes, and strategies is competitively important because it allows SoCalGas to differentiate itself from its competitors. If this information were publicly disclosed, SoCalGas's competitors could use it to duplicate or specifically evaluate SoCalGas's products, product performance characteristics, strategies, processes, etc. Moreover, third-parties could use this information to duplicate or specifically evaluate SoCalGas's processes and compete against SoCalGas in the natural gas storage and distribution market.

7. Is there any other explanation you deem relevant to EPA's determination of your business confidentiality claim that is not covered in the preceding questions? If so, you may provide such additional explanation.

Not at this time.